

IFW

PATENT APPLICATION  
DOCKET # 5034-0001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

Michael G. Taylor

§  
§  
§  
§  
§  
§

Serial No.: 10/728,247

Group Art Unit: Unknown

Filed: December 4, 2003

Examiner: Unknown

For: COHERENT OPTICAL DETECTION AND SIGNAL PROCESSING METHOD AND  
SYSTEM

CERTIFICATE OF MAILING BY FIRST CLASS MAIL:

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to:  
Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313.

on . . . September 24, 2004 . . . . . by Michael L. Diaz . . . . .

Signature *Michael L. Diaz*

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313

Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 CFR §1.56 and in accordance with 37 CFR §§1.97-1.98 information relating to the above-identified application is hereby disclosed. Copies of each of the reference listed on the attached Form PTO/SB/08B is enclosed herewith. Certain of the reference may contain markings,

**PATENT APPLICATION  
DOCKET # 5034-0001**

underlinings or other notations. These markings are not intended and should not be construed as drawing the Examiner's attention either to selected parts or away from other parts of the references, but such markings were either present on the copies of the references obtained by applicant, or were made thereon during the study of the references by applicant and/or its attorneys.

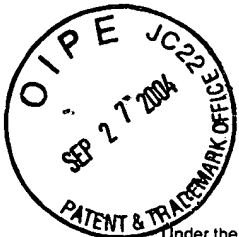
Respectfully submitted,



Michael L. Diaz  
Registration No. 40,588

Dated: 9-24-04

Michael L. Diaz, P.C.  
555 Republic Drive, Suite 200  
Plano, Texas 75074  
(972) 578-5669



PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)	<b>Application Number</b>		10/728,247		
	<b>Filing Date</b>		12-04-2003		
	<b>First Named Inventor</b>		Michael G. Taylor		
	<b>Art Unit</b>				
	<b>Examiner Name</b>				
<b>Sheet</b>	1	<b>of</b>	3	<b>Attorney Docket Number</b>	5034-0001

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		YONENAGA ET AL., "Dispersion Compensatin for Homodyne Detection Systems Using a 10-Gb/s Optical PSK-VSB Signal, IEEE Photonics Technology Letters, Vol. 7, No. 8, August 1995.	
		YAMASHITA, "Suppression of Beat Noise from Optical Amplifiers Using Coherent Receivers," Journal of Lightwave Technology, Vol. 12, No. 6, June 1994.	
		WHITLEY ET AL., "Laser Diode Pumped ER3+-Doped Fiber Amplifier in a 565 Mbit/s DPSK Coherent Transmission Experiment," IEEE Photonics Technology Letters, Vol. 1, No. 12, 12-89	
		VODHANEL ET AL., "Bipolar Optical FSK Transmission Experiments at 150 Mbit/s and 1Gbit/s," Journal of Lightwave Technology, Vol. 6, No. 10, Oct. 1988.	
		TAKACHIO ET AL., "Optical PSK Synchronous Heterodyne Detection Transmission Experiment Using Fiber Chromatic Dispersion Equilization," IEEE Photonics Technology, March 1992.	
		TAKAHIO ET AL., "Transmission Limitations Due to Self-Phase Modulation in Optical PSK Heterodyne Detection Systems Employing...", Journal of Lightwave Technology, Feb. 1984.	
		OKOSHI ET AL., "Double-Stage Phase-Diversity Optical Receiver: Analysis and Experimental Confirmation of the Principle," Journal of Lightwave Technology, Mar. 1990	
		NOSU ET AL., "A Consideration of Factors Affecting Future Coherent Lightwave Communication Systems," Journal of Lightwave Technology, May 1988.	
		NORIMATSU ET AL., "Linewidth Reuquirements for Optical Synchronous Detection Systems with Nonnegligible Loop Delay Time," Journal of Lightwave Technology, March 1992.	
		NORIMATSU ET AL., "An Optical 90-Hybrid Balanced Receiver Module Using A Planar Lightwave Circuit," IEEE Photonics Technology Letters, June 1994.	

<b>Examiner Signature</b>		<b>Date Considered</b>	
---------------------------	--	------------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)	<b>Application Number</b>		10/728,247
	<b>Filing Date</b>		12-04-2003
	<b>First Named Inventor</b>		Michael G. Taylor
	<b>Art Unit</b>		
	<b>Examiner Name</b>		
Sheet 2	of 3	<b>Attorney Docket Number</b> 5034-0001	

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		STICHT ET AL., "Design of Near Optimum Electrical Equalizers for Optical Transmission in the Presence of PMD," IEEE Photonics Technology Letters, Dec.m 1990.	
		NORIMATSU ET AL., " PLL Propagation Delay-Time Influence on Linewidth Requirements of Optical PSK Homodyne Detection," Journal of Lightwave Technology, Oct. 1991.	
		NORIMATSU ET AL., "Cross-Phase Modulation Influence on a Two-Channel Optical PSK Homodyne Transmission System," IEEE Transactions Photonics Technology Letters, Dec. 1991	
		NORIMATSU ET AL., " An 8 Bb/s QPSK Optical Homodyne Detection Experiment Using External-Cavity Laser Diodes," IEEE Phtotonics Technology Letters, July 1992.	
		NORIMATSU ET AL., "The Influence of Cross-Phase Modulation on Optical FDM PSK Homodyne Transmission Systems," Journal of Lightwave Technology, May/June 1993	
		NORIMATSU ET AL., "10Ggit/s Optical BPSK Homodyne Detection Experiment with Solitary DFB Laser Diodes," Electronics Letters, 19 Jan. 1995.	
		NORIMATSU ET AL., "PSK Optical Homodyne Detection Using External Cavity Laser Diodes in Costas Loop," IEEE Photonics Technology Letters, May 1990.	
		NOE ET AL., " Comparison of Polarization Handling Methods in Coherent Optical Systems," Journal of Lighwave Technology, October 1991.	
		LINKE ET AL., " High-Capacity Coherent Lightwave Systems," Journal of Lightwave Technology, Nov. 1988.	
		KAZOVSKY ET AL., "Phase- and Polarization-Diversity Coherent Optical Techniques," Journal of Lightwave Technology, Feb. 1989.	

<b>Examiner Signature</b>		<b>Date Considered</b>	
---------------------------	--	------------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/728,247
		Filing Date	12-04-2003
		First Named Inventor	Michael G. Taylor
		Art Unit	
		Examiner Name	
Sheet 3	of 3	Attorney Docket Number	5034-0001

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		GNAUCK ET AL., 4-Gb/s Heterodyne Transmission Experiments Using ASK, FSK, and DPSK Modulation," IEEE Photonics Technology Letters, Dec. 1990.	
		KAZOVSKY ET AL., "560 Mb/s Optical PSK Synchronous Heterodyne Experiment," IEEE Photonics Technology Letters, June 1990.	
		KAZOVSKY ET AL., "Wide-Linewidth Phase Diversity Homodyne Receivers," Journal of Lightwave Technology, Oct. 1988.	
		KAZOVSKY ET AL., "Optical Phase-LOCKED PSK Heterodyne Experiment at 4 Gb/s," IEEE Photonics Technology Letters, Aug. 1990.	
		KAVEHRAD ET AL., "Polarization-Insensitive Frequency Shift Keying Optical Heterodyne Receiver Using Discriminator Demodulation," Journal of Lightwave Technology, Sept. 1988.	
		KAHN ET AL., " 4-Gb/s PSK Homodyne Transmission System Using Phase-Locked Semiconductor Lasers," IEEE Photonics Technology Letters, Apr. 1990.	
		KAHN ET AL., " BPSK Homodyne Detection Experiment Using Balanced Optical Phase-Locked Loop With Quantized Feedback," IEEE Photonics Technology Letters, Nov. 1990.	
		IWASHITA ET AL., " Experimental Evaluation of Chromatic Dispersion Distortion in Optical CPFSK Transmission Systems," Journal of Lightwave Technology, Oct. 1989.	
		IWASHITA ET AL., "Chromatic Dispersion Compensation in Coherent Optical Communications," Journal of Lightwave Technology, March 1990.	
		HO ET AL., "Optical Frequency Comb Generator Using Phase Modulation in Amplified Circulating Loop," IEEE Photonics Technology Letters, June 1993.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.